



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,023	02/02/2004	Nozomi Sawada	246853US-2 DIV	7240
22850	7590	02/18/2010	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.			KAU, STEVEN Y	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	
			2625	
			NOTIFICATION DATE	
			DELIVERY MODE	
			02/18/2010	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/768,023	SAWADA, NOZOMI	
	Examiner	Art Unit	
	STEVEN KAU	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/3/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This is in response to Applicant(s) arguments filed on 12/03/2009.

- The following is the current status of claims:

Claims 1-23 have been canceled and claims 24-49 have been added for examination in this Action.

- IDS Submitted for consideration:

Applicant submitted IDS on 12/03/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

- Response to Remarks/Arguments:

(1) Applicant's arguments, page 9-11, Remarks/Arguments, with respect to the rejection of claims 1-6 under the obviousness-type double patenting, and claims 1-6 10-13, 15 and 19-23 rejection under 35 U.S.C. 103(a) have been fully considered but are moot in view of the new ground(s) of rejection due to the amendments.

It is noted, Applicant intends to invoke 112 6th in claims 34-41.

The 3-prong analysis criteria for "means-plus" function are:

(A) the claim limitation must be the phrase "means for" or "step for";

(B) the "means for" or "steps for" must be modified by functional language; and

(C) the phrase “means for” or “step for” must NOT be modified by sufficient structure, material, or acts for achieving the specified function.

“means for” claim limitations of claims 34-41 are found modified by sufficient structure or acts for achieving the specified function. For example, claim 34, limitation recites, " means for storing user-input setting information that indicates when not to print with a substitute recording medium when a size of a recording medium indicated by a print instruction is unavailable", where “means for” is modified with sufficient structure or acts for achieving the specified function, i.e. “storing user-input setting information that indicates when not to print with a substitute recording medium when a size of a recording medium indicated by a print instruction is unavailable”. The examiner does not consider that "means for" in claims 34-41 invokes 112 6th paragraph, and therefore, these claim limitations will be given a broadest reasonable interpretation in light of the supporting disclosure. See MPEP Section 2181.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 24-49 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed,

Art Unit: 2625

had possession of the claimed invention. With respect to claim 24, limitation recites, “a storage unit configured to store user-input setting information that indicates when not to print with a substitute recording medium when a size of a recording medium indicated by a print instruction is unavailable”, which is not supported in the original specification. The closest description in the specification is found in paragraph [0018], US2004/0156056, recites, “The image forming apparatus may further comprise means for notifying to the outside when the size of the recording medium specified by the print instruction is not available or when corresponding setting information is not stored in the storage means, together with information indicating an available size of the recording medium, so as to request the setting instruction. In this case, the substitute recording medium size is automatically requested to an external host unit or the like when needed, so that the setting information of the substitute recording medium can be newly registered or updated without requiring the user to be aware of such.” Independent claims 34 and 42 contain identical claimed feature and are rejected under 35 U.S.C. 112, first paragraph for the same reason discussed. Claims 25-31, 35-41 and 43-49 are rejected under 35 U.S.C. 112, first paragraph because of their dependencies to claims 24, 34 and 42, respectively.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 24-26, 31, 33-36, 41-44 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda et al (US 5,845,057).

Regarding claim 24.

Takeda discloses an image forming apparatus comprising: a storage unit **(referring to Document Managing Table storage 420 of Fig. 2)** configured to store user-input setting information that indicates when not to print with a substitute recording medium **(i.e. referring to Document ID 2 & 3 where Substitutive paper size is set to "Null"; that is, no print with a substitute recording medium, col 15, lines 39-50)** when a size of a recording medium indicated by a print instruction is unavailable **(referring to Fig. 12, a document managing table, where stores the size of substitute recording medium specified by a user, col 15, lines 3-9);** a processor **(referring to Controller 410 of Fig. 2 and Printer of Fig. 3, a processor is an inherent property of Printer and Controller)** configured to determine whether or not to use the substitute recording medium based on the user-input setting information **(referring to Fig. 20, Step 14 determines for substitutive printing in accordance with user's instruction, col 14, line 48 to col 15, line 10),** and to execute the print instruction by automatically changing a size of the recording medium indicated by the print instruction to the size of the substitute recording medium when the size of the recording medium indicated by the print instruction is not available and the user-input setting information causes the processor to print with the substitute recording medium **(i.e. "If the substitutive paper size is designated, the printing using the paper size is continued", col 15, lines 39-50; that is, the controller executes the printing**

Art Unit: 2625

when the substitute paper size is in place in accordance with user's instruction);
and a printing unit configured to print an image on the recording medium or the substitute recording medium as indicated by the processor (i.e. **"If the substitutive paper size is designated, the printing using the paper size is continued"**, col 15, lines 39-50 and step S19 of Fig. 20; that is, the printing unit is configured to print image on the substitute paper as controlled by the controller).

Regarding claim 25, of claim 24.

Takeda discloses wherein after printing of a print job corresponding the print instruction has begun, the processor is configured to regard the user-input setting information as invalid (**checking whether or not the substitutive paper size is designated**) and to cause a same size of the recording medium or the substitute recording medium to be used for all of a plurality of pages in the print job corresponding to the print instruction (i.e. **substitutive paper size not designated or specified, the error processing portion 405 determines a substitutive printing apparatus based on the received code for printing, Fig. 20, col 15, line 39 to col 16, line 2**).

Regarding claim 26, of claim 24.

Takeda discloses wherein the processor is configured to cause a same size of the recording medium or the substitute recording medium to be used for all of a plurality of pages in a print job corresponding to the print instruction (**referring to Fig. 20, "If the substitutive paper size is designated, the printing using the paper size is continued"**, that is, the printing process of using substitutive paper is continued; col 15, lines 39-50).

Regarding claim 31, of claim 25.

Takeda discloses wherein the processor is configured to stop printing when the size of the recording medium indicated by the print instruction is used for a first page of the print job and subsequently becomes unavailable (i.e. **“If the error detection portion 404 detects the occurrence of the depletion of paper having the size designated by the user, the following operation may be performed”, col 36-38; that is, when the absence or unavailable or depletion of paper having the size specified by the user of specified paper size is detected, the printing is stopped because there is an error; then a serial operation is performed, i.e. error analysis, using substitutive medium, etc.).**

Regarding claim 33, of claim 24.

Takeda discloses wherein after printing of a print job corresponding to the print instruction has begun, the processor is configured to not change a size of the recording medium indicated by the print instruction to the size of the substitute recording medium even if the user-input setting information would cause the processor to print with the substitute recording medium (**referring to Figs 12 and 20, when printing paper is depleted, or unavailable, or run out of paper, step 13 detects an error and when no paper size is designated, the error processing portion 405 determines a substitutive apparatus to continue printing the print job, col 15, line 39 to col 16, line 2).**

Regarding claim 34.

Claim 34 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 24, with identical features corresponding directly to the function of device elements in claim 24. Thus claim 34 is rejected as set forth above for claim 24.

Regarding claim 35, of claim 34.

Claim 35 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 25, with identical features corresponding directly to the function of device elements in claim 25. Thus claim 35 is rejected as set forth above for claim 25.

Regarding claim 36, of claim 34.

Claim 36 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 26, with identical features corresponding directly to the function of device elements in claim 26. Thus claim 36 is rejected as set forth above for claim 26.

Regarding claim 41, of claim 34.

Claim 41 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 33, with identical features corresponding directly to the function of device elements in claim 33. Thus claim 41 is rejected as set forth above for claim 33.

Regarding claim 42.

Claim 42 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 24, with method steps

Art Unit: 2625

directly corresponding to the function of device elements in claim 24. Thus, claim 42 is rejected as set forth above for claim 24.

Regarding claim 43, of claim 42.

Claim 43 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 25, with method steps directly corresponding to the function of device elements in claim 25. Thus, claim 43 is rejected as set forth above for claim 25.

Regarding claim 44, of claim 42.

Claim 42 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 26, with method steps directly corresponding to the function of device elements in claim 26. Thus, claim 42 is rejected as set forth above for claim 26.

Regarding claim 49, of claim 42.

Claim 49 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 33, with method steps directly corresponding to the function of device elements in claim 33. Thus, claim 49 is rejected as set forth above for claim 33.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2625

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 27, 29, 37, 39, 45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al (US 5,845,057) as applied to claims 24, 38 and 42 above, and in view of de Koning et al (US 6,266,512).

Regarding claim 27, of claim 24.

Takeda does not disclose wherein the user-input setting information indicates a default size of the substitute recording medium.

However, in the same field of endeavor, de Koning teaches wherein the user-input setting information indicates a default size of the substitute recording medium (i.e. **“If input documents are of different size from the default substrate, then the printed image is often cropped or, alternatively, too small for the output substrate. It would be advantageous if the substrate bin default selection was automatically adjusted to select the bin with the substrate size that most closely corresponds in size to the input documents”**; that is, user or an operator designated a default substrate with most closely corresponding size for printing. Thus, one skill in the art would use a default size in a substitutive printing apparatus for printing process, col 1, lines 14-45).

Having an image forming apparatus of Takeda '057 reference and then given the well-established teaching of de Koning '512 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda

Art Unit: 2625

'057 reference by applying the known technique of " the user-input setting information indicates a default size of the substitute recording medium " as taught by de Koning '512 reference. The motivation for doing so would have been to improve the system throughput and thus to improve the productivity (col 9, lines 41-67, de Koning), and further the disclosure provided could easily be established for one another with predictable results.

Regarding claim 29, of claim 24.

Takeda does not disclose wherein the user-input setting information indicates that a size of the substitute recording medium is an available size nearest to the size of the recording medium indicated by the print instruction.

In the same field of endeavor, de Koning teaches wherein the user-input setting information indicates that a size of the substitute recording medium is an available size nearest to the size of the recording medium indicated by the print instruction (i.e. **"It would be advantageous if the substrate bin default selection was automatically adjusted to select the bin with the substrate size that most closely corresponds in size to the input documents"; that is, one skill in the art would choose the most closely corresponding size, or the nearest size of substrate or paper as substitutive medium when the desired paper size is run out, to prevent any data lost due to printing, col 1, lines 14-45).**

Having an image forming apparatus of Takeda '057 reference and then given the well-established teaching of de Koning '512 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda

Art Unit: 2625

'057 reference by applying the known technique of "the user-input setting information indicates that a size of the substitute recording medium is an available size nearest to the size of the recording medium indicated by the print instruction" as taught by de Koning '512 reference. The motivation for doing so would have been to improve the system throughput and thus to improve the productivity (col 9, lines 41-67, de Koning), and further the disclosure provided could easily be established for one another with predictable results.

Regarding claim 37, of claim 34.

Claim 37 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 27, with identical features corresponding directly to the function of device elements in claim 27. Thus claim 37 is rejected as set forth above for claim 27.

Regarding claim 39, of claim 34.

Claim 39 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 29, with identical features corresponding directly to the function of device elements in claim 39. Thus claim 39 is rejected as set forth above for claim 29.

Regarding claim 45, of claim 42.

Claim 45 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 27, with method steps directly corresponding to the function of device elements in claim 27. Thus, claim 45 is rejected as set forth above for claim 27.

Regarding claim 47, of claim 42.

Claim 47 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 29, with method steps directly corresponding to the function of device elements in claim 29. Thus, claim 47 is rejected as set forth above for claim 29.

8. Claims 28, 32, 38 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al (US 5,845,057) as applied to claims 24, 34 and 42 above, and in view of Shukunami et al (US 5,031,116).

Regarding claim 28, of claim 24.

Takeda does not disclose wherein the user-input setting information indicates that a size of the substitute recording medium is larger in size than the size of the recording medium indicated by the print instruction.

However, in the same field of endeavor, Shukunami teaches wherein the user-input setting information indicates that a size of the substitute recording medium is larger in size than the size of the recording medium indicated by the print instruction (i.e. **“if an image formation request corresponding to the ST size is received, and the paper P of the ST size is not present, paper P of ST, LG, or LD size, larger than the paper of the ST size, may be used as a substitute”**; col 13, lines 54-58).

Having an image forming apparatus of Takeda '057 reference and then given the well-established teaching of Shukunami '116 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda

Art Unit: 2625

'057 reference by applying the known technique of "the user-input setting information indicates that a size of the substitute recording medium is larger in size than the size of the recording medium indicated by the print instruction" as taught by Shukunami '116 reference. The motivation for doing so would have been to improve the image reproduction quality by preventing any data lost in printing (col 1, lines 51-61, Shukunami), and further the disclosure provided could easily be established for one another with predictable results.

Regarding claim 32, of claim 28.

Takeda discloses wherein the processor is configured to restart printing when one or more recording media of the size indicated by the print instruction is provided **(referring to Figs. 12 and 20, "If the substitutive paper size is designated, the printing using the paper size is continued", col 15, line 39-50).**

Regarding claim 38, of claim 34.

Claim 38 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 28, with identical features corresponding directly to the function of device elements in claim 28. Thus claim 38 is rejected as set forth above for claim 28.

Regarding claim 46, of claim 42.

Claim 46 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 28, with method steps directly corresponding to the function of device elements in claim 28. Thus, claim 46 is rejected as set forth above for claim 28.

9. Claims 30, 40 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al (US 5,845,057) as applied to claims 24, 34 and 42 above, and in view of Yoshida (US 5,917,612).

Regarding claim 30, of claim 24.

Takeda does not disclose wherein the user-input setting information indicates that a size of the substitute recording medium is A4 when the size of the recording medium indicated by the print instruction is letter.

However, in the same field of endeavor, Yoshida teaches wherein the user-input setting information indicates that a size of the substitute recording medium is A4 when the size of the recording medium indicated by the print instruction is letter (i.e. **“a case where A4 size is transmitted as the regular format paper size transmission if the length in the main scanning direction is 216 mm, the letter size may be considered as the regular format paper size”**; col 21, lines 58-62 and **“instruction whether or not the transmission with the regular format paper size is selected is considered. However, as the regular format paper having the main scanning directional length of 216 mm, there are A4 size (210 mm x 297 mm), letter size (216 mm.times.279 mm) and legal size (216 mm.times.256 mm)”**, col 23, lines 42-49; one skill in the art would set information to indicate to use A4 as a substitutive medium for letter size medium because the size of A4 is a most closest corresponding to the letter size).

Having an image forming apparatus of Takeda '057 reference and then given the well-established teaching of Shukunami '116 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Takeda '057 reference by applying the known technique of " wherein the user-input setting information indicates that a size of the substitute recording medium is A4 when the size of the recording medium indicated by the print instruction is letter " as taught by Shukunami '116 reference. The motivation for doing so would have been to improve the image reproduction quality to preventing any data lost in printing by using similar medium size in printing (col 1, lines 51-61, Shukunami), and further the disclosure provided could easily be established for one another with predictable results.

Regarding claim 40, of claim 34.

Claim 40 is directed to an image forming apparatus which substantially corresponds to the operation of the device in claim 30, with identical features corresponding directly to the function of device elements in claim 30. Thus claim 40 is rejected as set forth above for claim 30.

Regarding claim 48, of claim 30.

Claim 48 is directed to a method of printing in an image forming apparatus which substantially corresponds to operation of the device in claim 30, with method steps directly corresponding to the function of device elements in claim 30. Thus, claim 48 is rejected as set forth above for claim 30.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

CONTACT INFORMATION

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on Monday to Friday, from 8:30 am -5:30 pm.

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Steven Kau/
Examiner, Art Unit 2625
February 5, 2010

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625